
A New Species of *Williamodendron* (Lauraceae) from Southern Brazil

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Included among specimens recently received on loan or as gifts for identification from GUA and MBML were several collections representing an undescribed species of Lauraceae. Study of this material showed that they belong to the genus *Williamodendron*, a genus not previously recorded from southern Brazil. Included also were two fruiting collections. Because fruits and cupules were not yet known from *Williamodendron*, they are described here in some detail. Shape and size of the cupule indicate a close relationship between *Williamodendron* and *Mezilaurus*.

Williamodendron cinnamomeum van der Werff, sp. nov. TYPE: Brazil. Espírito Santo: Santa Teresa, property of Sr. Alberto Shepa, *Boudet Fernandes 2392* and *E. Bausen* (holotype, MBML; isotypes, GUA, MO, RB n.v.). Figure 1.

A congeneribus indumento cinnamomeo-tomentello ramulorum, petiolorum et venarum recedit; a *Williamodendro quadrilocellato* pedicellis glabris et a *W. glaucophyllo* foliis apice obtusis vel emarginatis differt.

Trees, to 20 m tall. Twigs terete, older ones with conspicuous scars of fallen leaves, cinnamon brown-tomentellous. Terminal bud cinnamon brown-tomentellous. Leaves alternate or somewhat clustered toward the tips of the branches, chartaceous, 12–25 × 5–9 cm, obovate, the base acute, the tip obtuse or slightly emarginate, lateral veins 9–13 on each side, immersed on upper surface but, together with midrib and tertiary venation, raised on lower surface, the upper surface somewhat shiny, glabrous or with traces of tomentellous pubescence along midrib and lateral veins, especially near the base, the lower surface with tomentellous midrib and lateral veins, the indument becoming sparser on tertiary veins and lamina surface, lower surface with ashy color. Petioles of mature leaves 2–5 cm long, flattened on upper surface, with similar indument as twigs. Inflorescences axillary, to 5 cm long, paniculate, brown-tomentellous, especially near the base, the flowers arranged singly or in cymes along the lateral branchlets. Flowers subtended by one pubescent, lanceolate bract ca. 0.7 mm long, and two lanceolate bracteoles, each ca. 0.4 mm long.

Pedicels to 1.4 mm long, glabrous or nearly so. Flowers glabrous, green, bowl-shaped, 2 mm wide and 1 mm high. Tepals 6, glabrous, incurved, or somewhat erect, broadly ovate, ca. 1 mm long, the outer three slightly longer than the inner three. Stamens 3, 4-celled, opposite the outer tepals, the cells apical on the flat tip of the anther. Staminodia 3, densely pubescent, opposite the inner tepals. Ovary glabrous, depressed globose, style short; gynoecium in young flower 0.7 mm long. Receptacle pubescent inside. Fruit a drupe, ± globose, ca. 3 × 3 cm, the minute tepals persistent at the base, but not forming a distinct cupule

Common names: Canela limão, Tapinhoã.

Paratypes. BRAZIL. ESPÍRITO SANTO: Santa Teresa, Santa Lucia, *Boudet Fernandes et al. 2399* (st) (GUA, MBML, MO); same locality, *Boudet Fernandes et al. 2401* (juv.) (GUA, MBML); *Boudet Fernandes 2600* (fr) (MBML, MO); *Boudet Fernandes 2601* (fr) (MBML, MO).

The genus *Williamodendron* was recently described by Kubitzki & Richter (1987), who included in it two species previously placed in *Mezilaurus* (van der Werff, 1987). Kubitzki & Richter based their new genus on the combination of the flowers with three 4-celled stamens and details of bark and secondary xylem anatomy. The position of its anther cells, on the flat, apical portion of the anther, is highly unusual in neotropical Lauraceae; it also occurs in the recently described *Povedadaphne* (Burger, 1988) from Costa Rica. However, *Povedadaphne* has nine fertile stamens and does not have the typical aspect of *Williamodendron* (obovate, frequently clustered leaves with long petioles); its relationships are not clear.

Kubitzki & Richter (1987) considered *Mezilaurus* (including *Clinostemon*) to be the closest relative of *Williamodendron*. With this, I agree; in my opinion, the differences in floral and wood/bark anatomical characters warrant the recognition of *Williamodendron* as a distinct genus, closely related to *Mezilaurus*. Fruiting material of *Williamodendron* was not known to Kubitzki & Richter. The species here described has a globose fruit subtended by the small, persistent tepals, which form a small collar at the base of the fruit.

A fruiting specimen recently collected near Iqui-

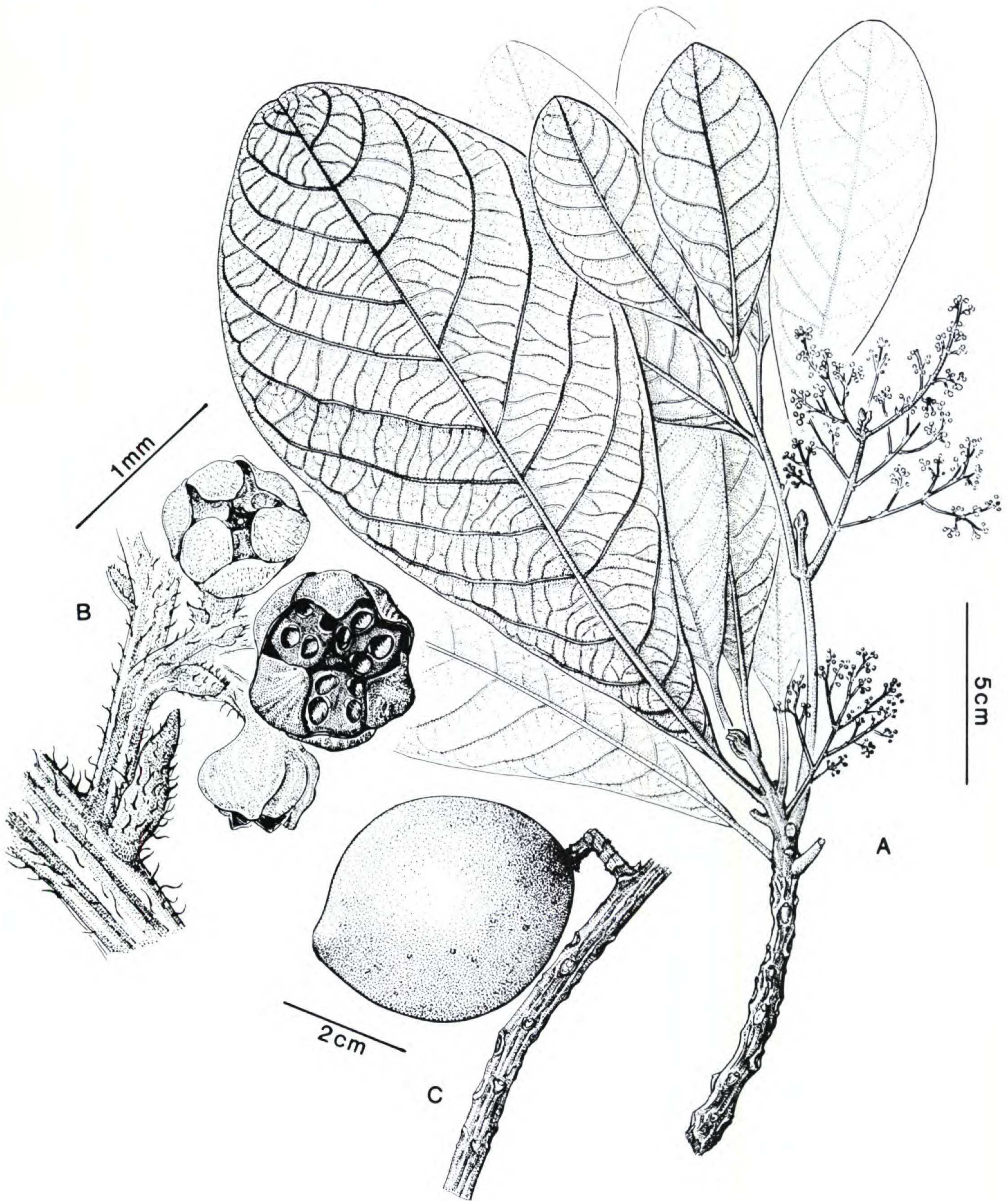


Figure 1. *Williamodendron cinnamomeum* van der Werff. —A. Habit. —B. Flower. —C. Fruit.

tos, Peru, is similar; the fruit is ellipsoid, 3×1.5 cm, and has a narrow collar, formed by persistent tepals, at its base (*van der Werff* 10227 MO). This species has been recollected with flowers and has the same floral structure as *Mezilaurus mahuba* (Samp.) van der Werff. In the specimen from Es-

pírito Santo the individual tepals at the base of the fruit are still recognizable, but in the specimen from Iquitos they are not. The latter specimen has dried staminodes (three large ones, sometimes alternating with three small ones) near the margin of the collar. Cupule shape of *Williamodendron* agrees very well

with that of *Mezilaurus* and suggests a close relationship between these genera, as does the shared common name for the *Williamodendron* and *Mezilaurus* species in southern Brazil (Tapinhoã). *Williamodendron cinnamomeum* is only known from Santa Teresa, Espírito Santo. Of the five collections, only one was flowering, and the inflorescence was, in comparison with the other two species of *Williamodendron*, very short. The MBML holotype has a 5-cm-long inflorescence attached to the twig, and the MO isotype has a detached inflorescence, also 5 cm long. I do not attribute much significance to the small inflorescences and expect that additional collections will have larger inflorescences. The juvenile collection was taken from a 1-m plant and differs from the mature trees in the following characters: leaves narrowly obovate (25–30 × 6–7 cm) and membranaceous, and lateral veins 15–20.

With this new species, *Williamodendron* includes three species, which can be separated as follows:

- 1a. Pedicels rufous tomentellous; this contrasting with the glabrous flowers *W. quadrilocellatum*
- 1b. Pedicels glabrous or with a few hairs near the base; flowers glabrous 2
- 2a. Petioles minutely gray-puberulous; laminae below with scattered, appressed hairs, these less than 0.1 mm long; leaf tip acute *W. glaucophyllum*
- 2b. Petioles brown-tomentellous; laminae below with erect, curled hairs, these ca. 0.2 mm long; leaf tip obtuse to emarginate *W. cinnamomeum*

The distribution of these three species is as follows: *Williamodendron glaucophyllum* is restricted to Costa Rica, *W. quadrilocellatum* is known from northern Colombia and the surroundings of Manaus, Brazil, and *W. cinnamomeum* occurs only in the Atlantic rainforests of southern Brazil. This is the first record of this genus from southern Brazil. It is likely that further collecting will result in an increasing number of species. Sterile collections from Panama, Colombia, and Peru represent four additional species. Generic identifications of nonflowering specimens are difficult. A fruiting collection from Iquitos, first thought to represent an undescribed *Williamodendron* species (based on its large, obovate, clustered leaves with long petioles), turned out to be an undescribed species of *Mezilaurus*. Unfortunately, the small, greenish flowers make finding more material difficult.

I thank the curators of GUA and MBML for the gifts and loans of Lauraceae.

Literature Cited

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